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METHODS AND SYSTEM FOR EXECUTING A TRANSACTION TASK WITHIN A TRANSACTION PROCESSING SYSTEM EMPLOYING SYMMETRIC MULTIPROCESSORS

IN THE CLAIMS

Please amend the claims as follows.

- 1-27. (Cancelled)
- 28. (New) A method of executing a transaction routing task, the method including:
 receiving a transaction request at an automatic call distribution system;
 generating an transaction event responsive to receiving the transaction request, the
 transaction event for routing the transaction request to an agent of the automatic
 call distribution system;
 - responsive to the transaction event, identifying a workflow associated with the transaction event;
 - distributing the transaction routing task, which at least partially executes the workflow, from a task queue to an available thread within a pool of threads operating within a multiprocessor system, the distributing of the transaction routing task to the available thread being responsive to dynamically assigning a new priority to the transaction routing task;

identifying a processor affinity attributed to the transaction routing task; and assigning the available thread to a processor within the multiprocessor system according to the processor affinity attributed to the transaction routing task to route the transaction request to the agent of the automatic call distribution system.

29. (New) The method of claim 28, wherein the transaction routing task includes any one from a group of transaction routing tasks including receipt of a telephone call, receipt of a hang up, a request to store data, a request to retrieve data, a request to generate a user interface for the agent.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE

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30. (New) The method of claim 29, wherein the telephone call includes at least one of a telephone call received via a public switched telephone network and a voice-over-IP call

received via the Internet.

31. (New) The method of claim 28, wherein the agent includes at least one of a human agent

and a software agent.

32. (New) The method of claim 28, wherein the transaction routing task has a real-time

priority and is distributed in accordance with the real-time priority to the available thread within

the pool of threads.

33. (New) The method of claim 28, including assigning the available thread to a processor

within the multiprocessor system according to a thread priority.

34. (New) The method of claim 33, including assigning the thread priority to the available

thread based on a priority of the transaction routing task distributed to the available thread.

35. (New) The method of claim 28, further including determining a best match between the

transaction routing task and the available thread.

36. (New) The method of claim 28, wherein the available thread is a member of a class of

threads that are included in the pool of threads, the class of threads being associated with the

priority.

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- 37. (New) A system for executing a transaction routing task, the system including: an automatic call distribution system to receive a transaction request; an event subsystem to generate a transaction event responsive to receiving the transaction request, the transaction event for routing the transaction request to an agent of the automatic call distribution system;
 - a dispatcher to identify a workflow associated with the transaction event;
 - a scheduler to issue the transaction routing task that at least partially executes the
 workflow associated with the transaction event, the scheduler to issue the
 transaction routing task from a task queue, responsive to a dynamic assignment of
 a new priority to the transaction routing task; and
 - a thread within a pool of threads operating within a multiprocessor system to execute the transaction routing task, the dispatcher to identify a processor affinity attributed to the transaction routing task, and to assign the thread to a processor within the multiprocessor system according to the processor affinity attributed to the transaction routing task to route the transaction request to the agent of the automatic call distribution system.

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38. (New) The system of claim 37, wherein the dispatcher is to generate the transaction routing task that at least partially executes the workflow.

- 39. (New) The system of claim 38, wherein the transaction routing task is dispatched by the dispatcher to the task queue, and wherein the thread within the pool of threads receives the transaction routing task from the task queue.
- 40. (New) The system of claim 39, wherein the scheduler is to issue the transaction routing task from the task queue to the thread within the pool of threads.
- 41. (New) The system of claim 40, wherein the scheduler is to issue the transaction routing task from the task queue to the thread within the pool of threads based on the priority associated with the transaction routing task.
- 42. (New) The system of claim 41, wherein the scheduler is to issue the transaction routing task from the task queue according to a real-time priority assigned to the transaction routing task.
- 43. (New) The system of claim 37, wherein the scheduler is to assign the thread to a processor within the multiprocessor system according to a thread priority.
- 44. (New) The system of claim 43, wherein the scheduler is to assign the thread priority to the thread based on a priority of the transaction routing task distributed to the thread.
- 45. (New) The system of claim 37, wherein the scheduler is to determine a best match between the transaction routing task and the available thread

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46. (New) The system of claim 37, wherein the available thread is a member of a class of threads that are included in the pool of threads, the class of threads being associated with the priority.

- 47. (New) A system for executing a transaction routing task, the system including:
 - a first means to receive a transaction request;
 - a second means to generate a transaction event responsive to receiving the transaction request, the transaction event for routing the transaction request to an agent of the first means;
 - a third means to identify a workflow associated with the transaction event;
 - a fourth means to issue the transaction routing task that at least partially executes the workflow associated with the transaction event, the fourth means to issue the transaction routing task from a task queue, responsive to a dynamic assignment of a new priority to the transaction routing task; and
 - a fifth means within a pool of threads operating within a multiprocessor system to
 execute the transaction routing task, the third means to identify a processor
 affinity attributed to the transaction routing task, and to assign the thread to a
 processor within the multiprocessor system according to the processor affinity
 attributed to the transaction routing task to route the transaction request to the
 agent of the first means.

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48. (New) A tangible machine readable medium storing a set of instructions that, when executed by a machine, cause the machine to:

receive a transaction request at a automatic call distribution system;

generate an transaction event responsive to receiving the transaction request, the

transaction event to route the transaction request to an agent of the automatic call
distribution system;

responsive to the transaction event, identify a workflow associated with the transaction event;

distribute a transaction routing task, which at least partially executes the workflow, from a task queue to an available thread within a pool of threads operating within a multiprocessor system, the distribution of the transaction routing task to the available thread responsive to a dynamic assignment of a new priority to the transaction routing task;

identify a processor affinity attributed to the transaction routing task; and assign the available thread to a processor within the multiprocessor system according to the processor affinity attributed to the transaction routing task to route the transaction request to the agent of the automatic call distribution system.